

REMARKS/ARGUMENTS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office Action, and amended as necessary to more clearly and particularly describe the subject matter that Applicant regards as the invention. Review of the subject application in view of the present remarks is respectfully requested.

By the present amendment, claims 1, 5 and 6 have been amended. Claim 7 has been added. No new matter is believed entered. As such, it is now respectfully submitted that each of the claims is in condition for allowance.

Claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Okawa et al. (U.S. Patent No. 6,569,100), hereinafter “Okawa”, in view of Morley et al. (U.S. Patent No. 6,840,938), hereinafter “Morley”, in further view of Warner (U.S. Patent No. 5,938,551), hereinafter “Warner”. Applicant respectfully traverses this rejection at least for the following reasons.

Claim 1 recites, “said middle pulley is slidable in a direction toward and away from said first pulley along a minimum distance route therebetween to protect looseness of the wire before operation and the position of said middle pulley can be fixed so that a distance between said middle pulley and said first pulley is kept constant during operation.” None of the cited references, either alone or in combination, describe such structure.

The Examiner concedes on page 3 of the Office Action that neither Okawa nor Morley expressly teach the use of a pulley for tensioning and a sliding mechanism for supporting said

middle pulley in such a manner that said middle pulley is slidable in a direction toward and away from said first pulley to protect looseness of the wire, and said middle pulley is not movable in a longitudinal direction of said longitudinal insertion portion. Furthermore, as shown in Fig. 2 of Okawa, the idler roller 21 moves rightward and leftward but does not move or slide along a minimum distance route as in the present invention. Thus, the Examiner relies on Warner to teach the structure of claim 1.

The Examiner alleges that Warner teaches “the use of a pulley for tensioning and a sliding mechanism for supporting said middle pulley in such a manner that said middle pulley is slidable in a direction toward and away from said first pulley”, allegedly Figs. 3, 9, and 12, elements 94, 96, and 74. The pulleys 94, 96 are moved toward each other, adding tension to the belt 70. The pulleys 94, 96 do not slide “toward and away from said first pulley,” as recited in claim 1. Instead, the pulleys 94, 96 in Warner move laterally relative to the first pulley at all times, due to being fixed to the slide rack 82. In addition, while the pulleys 94, 96 move rightward and leftward in Fig. 2, they do not move or slide along a minimum distance route, as recited in claim 1. Consequently, Warner does not teach “middle pulley is slidable in a direction toward and away from said first pulley along a minimum distance route therebetween to protect looseness of the wire before operation and the position of said middle pulley can be fixed so that a distance between said middle pulley and said first pulley is kept constant during operation,” as described in claim 1.

Therefore, even when combined, the references do not describe all of the structure of claim 1 as is required to support a rejection under 35 U.S.C. § 103(a). Accordingly, claim 1 is

now in condition for allowance. Applicant respectfully requests withdrawal of the corresponding rejection of claim 1.

Claims 2-4 depend from independent claim 1 that is believed to be in condition for allowance as set forth above. Accordingly, Applicant respectfully requests withdrawal of the corresponding rejection of claims 2-4 as depending directly or indirectly from allowable claim 1.

Claims 5 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Okawa et al. (U.S. Patent No. 6,569,100), hereinafter “Okawa”, in view of Morley et al. (U.S. Patent No. 6,840,938), hereinafter “Morley”, in further view of Warner (U.S. Patent No. 5,938,551), hereinafter “Warner”. Applicant respectfully traverses this rejection at least for the following reasons.

Amended claims 5 and 6 recite, “wherein the swinging shaft is formed substantially coaxially with the second pulley” and “a sliding mechanism for sliding said middle pulley in a direction parallel to the swinging shaft without moving said middle pulley in a longitudinal direction of said insertion portion to adjust tension of said wire.” None of the cited references, either alone or in combination, describe such structure.

The Examiner relies on Warner to teach the structure of claims 5 and 6. The Examiner alleges that Warner teaches “the use of a pulley for tensioning and a sliding mechanism for supporting said middle pulley”, allegedly Figs. 3, 9, and 12, elements 94, 96, and 74. In distinction, the tensioner pulleys 94, 96 move perpendicularly to the rotational axis of all of the pulleys in Warner. Therefore, Warner does not teach “a sliding mechanism for sliding said middle pulley in a direction parallel to the swinging shaft without moving said middle pulley in a

longitudinal direction of said insertion portion to adjust tension of said wire," as described in claims 5 and 6.

Therefore, none of the references describe all of the structure of claims 5 and 6 as is required to support a rejection under 35 U.S.C. § 103(a). Accordingly, claims 5 and 6 are now in condition for allowance. Applicant respectfully requests withdrawal of the corresponding rejection of claims 5 and 6.

Claim 7 has been added. Claim 7 recites, "wherein said middle pulley is slidable in a slide guide formed integrally in the tip portion." None of the cited references, either alone or in combination, describe such structure.

Neither Okawa nor Morley expressly teach the structure of claim 7. Similarly, Warner also fails to teach "wherein said middle pulley is slidable in a slide guide formed integrally in the tip portion." In Warner, the alleged middle pulley, pulleys 94, 96, are moved closer together to contact the second pulley system 66, adding tension to the belt 70. The pulleys 94, 96 are therefore secured to the rack 82, which supports the entire variable tension apparatus 74. Therefore, Warner does not teach "wherein said middle pulley is slidable in a slide guide formed integrally in the tip portion," as described in claim 7. As such, claim 7 is believed to be in condition for allowance.

In light of the foregoing, it is respectfully submitted that the present application is in condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No.: 16-0820, our Order No.: NIHE-38852.

Respectfully submitted,
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